

REMARKS

Applicants appreciate the Examiner's thorough examination of the subject application and request reexamination and reconsideration of the subject application in view of the preceding amendments and the following remarks. Applicants have carefully reviewed and considered the Office Action mailed on December 11, 2007, and the references cited therewith.

As of this amendment, claims 1, 21, 23, and 29 have been amended and claims 15-17 have been cancelled. As a result, claims 1-9, 11-14, 18, 21, 23-25, and 29-31 are pending in this application.

35 U.S.C. §103 Rejection of the Claims

Claims 1, 2, 4-7, 13, 15, 18, 21, 23 and 29-31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over IEEE 802.3 in view of Feuerstraeter (U.S. 6,169,729) and further in view of Kelly et al. (U.S. 5,907,553). Applicants respectfully traverse this rejection.

1. (Currently Amended) A device comprising:
 - a data transceiver adapted to be coupled to one or more data lanes of a device-to-device interconnection (DDI);
 - a negotiation section comprising:
 - logic to transmit a Base Page Message indicating whether a Next Page message is to follow, said Next Page message specifying one or more available data transmission modes for transmitting the at least one Ethernet frames in the DDI, said logic further configured to detect 8B/10B code groups on each data lane of the DDI in the absence of a Base Page Message, said logic capable of identifying at least one legacy device that does not support autonegotiation, said at least one legacy device including at least one of 10 gigabit attachment unit interface (XAUI) or at least one of gigabit Ethernet transmission over fiber (1000BASE-X) and serial gigabit media independent interface (SGMII); and
 - configuration logic to selectively configure the data transceiver to transmit and receive data on the DDI according to a data transmission mode based upon the detected 8B/10B code groups. (emphasis added).

As an initial matter, Applicants respectfully submit that the Examiner has not shown where the cited references teach each and every limitation as a whole. While it is within the Examiner's right to combine references in a 35 USC 103 rejection, it is incumbent upon the Examiner to show how a person of ordinary skill in the art would know how to combine these references to create Applicants' invention. Applicants respectfully submit that the Examiner has selected a number of individual limitations of each limitation from a variety of different references in effect creating a 'patchwork quilt' to suit his rejection. In order to effectively

respond to the Examiner's rejection, Applicants respectfully request that the Examiner show precisely where each limitation as a whole is taught in the prior art

In the Official Action, the Examiner relies upon IEEE 802.3 as teaching a number of the limitations of Applicants' claim 1. Specifically, the Examiner states that IEEE 802.3 teaches "configuration logic to selectively configure the data transceiver to transmit and receive data on the DDI according to a data transmission mode based upon the detected 8B/10B code groups (page 698, section 28.1.1, especially 2nd paragraph, 1st 2 lines which states "the auto-negotiation section provides the means to exchange information and configure both devices)." *Official Action*, page 3. Thus, it is Applicants' understanding that the Examiner is pointing to Figure 28-1 of the IEEE reference as teaching the configuration logic of Applicants' claim 1. However, Applicants have reviewed this figure and the sections cited by the Examiner and are unable to find any mention of 8B/10B code groups. Applicants do not understand how page 698 of the IEEE reference could teach "configuration logic to selectively configure the data transceiver to transmit and receive data on the DDI according to a data transmission mode based upon the detected 8B/10B code groups" without ever mentioning 8B/10B code groups. Applicants note that 8B/10B code groups are discussed on page 966 of the IEEE reference, however, this section fails to teach or suggest the limitation as a whole. Namely, "configuration logic to selectively configure the data transceiver to transmit and receive data on the DDI according to a data transmission mode based upon the detected 8B/10B code groups"

The Examiner has also rejected Applicants' claim 1 in view of Kelly. Specifically, the Examiner seems to suggest that Kelly discloses "said logic capable of identifying at least one legacy device that does not support autonegotiation, said at least one legacy device including at least one of 10 gigabit attachment unit interface (XAUI) or at least one of gigabit Ethernet transmission over fiber (1000BASE-X) and serial gigabit media independent interface (SGMII)." *Official Action*, page 4. The Examiner points to column 4, lines 1-20 and column 4, line 52 through column 5, line 2 for this rejection. These sections of Kelly have been provided below for the Examiner's convenience.

To enable the autonegotiation functions, a Physical layer device will contain an autonegotiation state machine. The autonegotiation state machine will first check to see if autonegotiation is enabled after reset. If autonegotiation is not enabled, the state machine remains in this state. If autonegotiation is enabled, the state machine disables transmission, waits for a period of time guaranteed to break the link with the connected partner, and then begins the autonegotiation process as described above. As mentioned, once the link is

broken, the local device transmits Fast Link Pulses which announce its available technologies to the connected device. The local device also waits for either fast link pulses or signals characteristic of a specific technology to be transmitted by the connected device. *Kelly* col. 4, lines 1-20.

Other embodiments of a system in accordance with the principles of the invention may include alternative or optional additional aspects. One such aspect of the present invention is that the Physical Layer Device includes a parallel detection receiver for detecting a technology ability of a connected device, a shift register for receiving a port identification code, the shifting of the identification code allowing an indication of port enablement, a duty cycle counter for controlling the shifting of the port identification codes in the shift register and for providing a disable signal for disabling the parallel detection receiver, and an autonegotiation arbitration state machine for receiving the indication of port enablement from the shift register and for receiving the disable signal from the duty cycle counter, the arbitration state machine enabling the parallel detection receiver upon receiving the port enablement indication and disabling the parallel detection receiver upon receipt of the disable signal from the duty cycle counter. *Kelly* cols. 4-5.

Applicants do not understand this rejection. Applicants have reviewed the passages above cited by the Examiner and are unable to find any reference to the claimed limitation. Again, Applicants' claim 1 states "said logic capable of identifying at least one legacy device that does not support autonegotiation, said at least one legacy device including at least one of 10 gigabit attachment unit interface (XAUI) or at least one of gigabit Ethernet transmission over fiber (1000BASE-X) and serial gigabit media independent interface (SGMII)." Applicants are unable to find reference to "logic capable of identifying at least one legacy device that does not support autonegotiation" in these passages. The devices discussed in these passages appear to describe devices that have autonegotiation *enabled* or *disabled*. Applicants respectfully submit that this is far different than a "legacy device that does not support autonegotiation." Moreover, Applicants' claim 1 further states, "said at least one legacy device including at least one of 10 gigabit attachment unit interface (XAUI) or at least one of gigabit Ethernet transmission over fiber (1000BASE-X) and serial gigabit media independent interface (SGMII)." Applicants are unable to find reference to XAUI, 1000BASE-X or SGMII in either the passages cited by the Examiner or in any other section of *Kelly*.

Therefore, Applicants respectfully submit that Applicants' independent claim 1 is in condition for allowance. Independent claims 21, 23, and 29 include similar limitations and are believed to be in condition for allowance as well. Since the remaining dependent claims depend either directly or indirectly from Applicants' independent claims, Applicants respectfully submit that these claims are in condition for allowance as well.

Applicants respectfully submit that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (603-668-6560) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 50-4238.

Respectfully submitted,

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